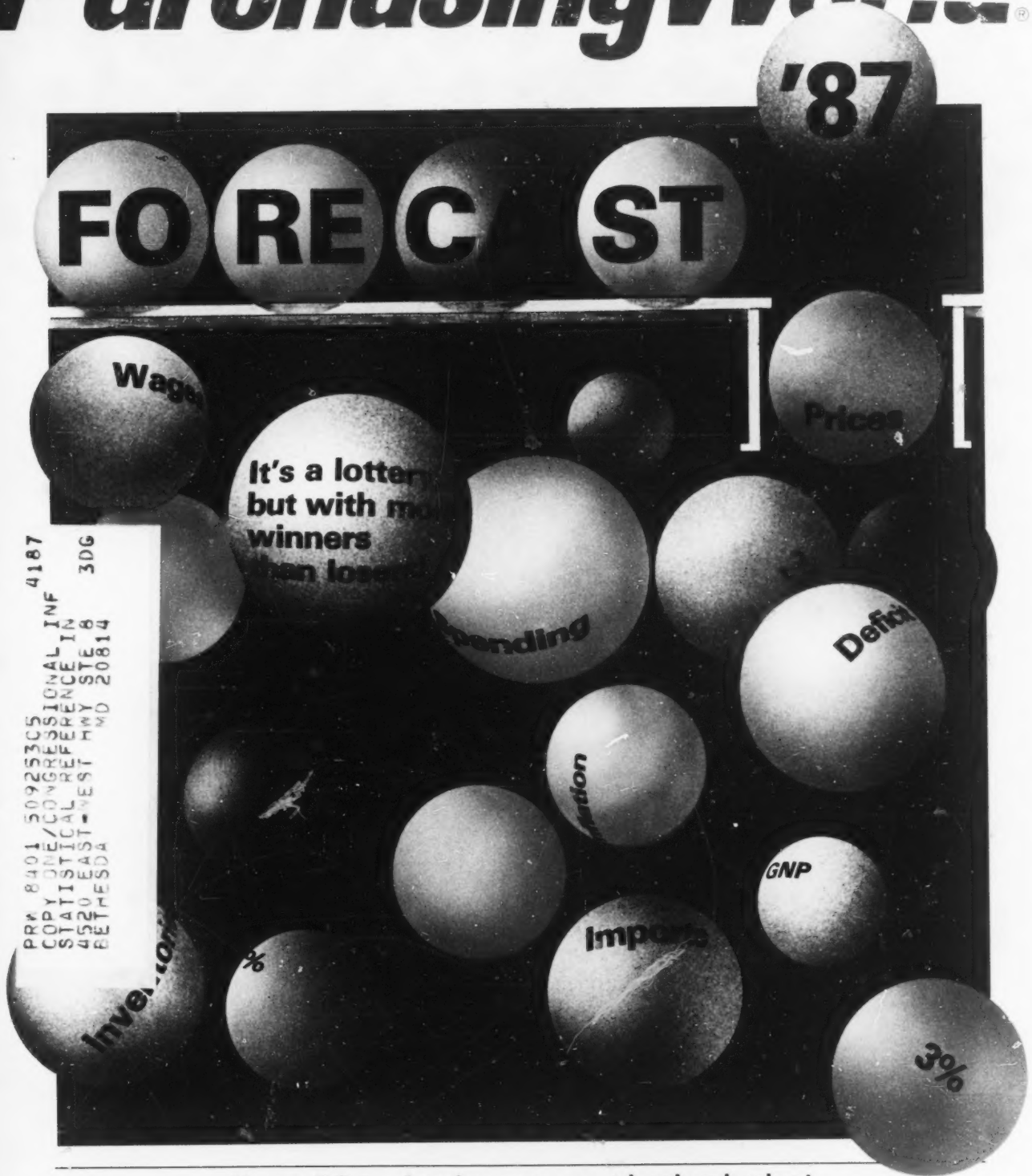
PurchasingW

JAN/1987
C4720-1



PRA 8401 50925365 4187
COPY ONE/CONGRESSIONAL INF
STATISTICAL REFERENCE IN
4520 EAST-WEST HWY STE 8 3DG
BETHESDA MD 20814

Use a PC to develop your purchasing budget

Media and politics—a bad mix for buyers

INNOVA showcases office automation

PurchasingWorld®

Helping you manage the business of buying

January 1987 Vol. 31 No. 1

Special report: Forecast '87

33 Q&A with Wharton Econometrics' Dr. Nariman Behravesh
In this exclusive *PurchasingWorld* interview, Dr. Behravesh says that as long as inflation remains low, the Fed loose, consumers optimistic, and the trade deficit narrowing, the year won't be all that bad.

36 Enough optimism to pop economy to top
Dr. Louis Paradiso sees enough forward momentum in the economy to keep it on a course of moderate growth. Also missing are the kinds of excesses that in the past have led to economic downturns.

43 Number crunchers tone down forecasts
The big econometric modelers—DRI, Wharton, Chase, and Merrill Lynch—are all less sanguine about the economy than they were just six months ago.

44 Room at the top for executive bullishness
Corporate executives remain cautiously optimistic that good performance will lead to a pickup in the economy.

45 Buyers betting on another good year
There are limits to what constitutes a good year for buyers, but stable prices, good supply, and modest economic growth in the economy are a good starting point and are likely to persist.

46 Better balance seen in electronic components
Domestic demand and a recovery in export demand will bring a better balance in the electronic components market, according to Gnostic Concepts, a San Mateo, CA, market research firm.

52 25 commodities that won't jump up too much
The quarterly price forecast from Data Resources Inc. is generally favorable, though effects of OPEC's price floor under oil could change long-term outlook.

54 Prices won't get out of hand—N.A.P.M.
The prestigious N.A.P.M. Business Survey Committee is looking for another "tolerably good" year in price increases—an assessment that mirrors the results of *PurchasingWorld*'s most recent survey of our readers.

32

60

Departments

4 PW Pointers
6 Editorial
8 PW Predicts
19 Business Datatrak
59 Transportation Report
60 Negotiations
77 Murray on Law
78 PW Office '87
86 Pinkerton on PCs
94 Classified Advertising
96 Advertising Index

Cover art by Terri A. Kabat

PurchasingWorld (USPS 472 470) is published monthly by International Thomson Industrial Press, Inc., 6521 Davis Industrial Parkway, Solon, OH 44139. Printed in USA. Subscriptions: Available without charge to qualified purchasing executives in US manufacturing companies. Available to others in the US for $46/year; Canada $56/year. Foreign subscriptions are available for $85 airmail or $60 surface mail. Sole agent for all subscriptions outside the USA and Canada is J.B. Tratsart, Ltd., 154a Greenford Road, Harrow, Middlesex HA 13QT, England. Second class postage paid at Cleveland, OH, and additional mailing offices. Editorial, circulation, and business offices: 6521 Davis Industrial Parkway, Solon, OH 44139.

® Copyright 1986 by International Thomson Industrial Press, Inc., subsidiary of International Thomson Business Press—All rights reserved

ISSN 0093 1659

Postmaster: Send address changes to **PurchasingWorld**, 6521 Davis Industrial Parkway, Solon, OH 44139

PW PREDICTS

Robert S. Reichard, executive editor

Don't worry about inflation

Figure on another year of price stability. That's the unanimous feeling among all sources queried in *PurchasingWorld*'s forecast for 1987.

There will be some price increases, but they're expected to be quite modest. The average advance should not be much more than in 1986—provided you subtract last year's distorting influence of tumbling oil prices.

This is actually quite a performance when you consider that we're now entering the fifth consecutive year of business expansion—a time when inflationary pressures have historically begun to emerge.

Why the difference this time? Read through *PurchasingWorld*'s forecast section, and four factors seem to be playing inflation-moderating roles:

- **A relatively slow growth pattern:** Complaints abound about the mediocre 2.5% rate of GNP advance this past year. But this can be regarded as a positive factor in the war against inflation.
- **The absence of bottlenecks:** Closely tied to the slow growth pattern noted above, it also reflects better planning and the increased availability of supplies from abroad. The current 79% U.S. factory operating rate would attest to ample supply.
- **The benign labor situation:** *PurchasingWorld*'s Dr. Louis J. Paradiso feels that unit labor costs—a key determinant of overall price trends—will rise by only 2% in 1987. That's not much above the 1% figure for 1986. Behind this surprisingly good showing: the combined impact of weakened union strength and modest productivity gains. On the latter score, factory efficiency has been growing at a 3%+ rate.
- **The absence of a big "outside" shock:** Continuing softness in the oil market can't be underestimated as an inflation inhibitor. And this trend is likely to continue. Then, too, bumper food crops over the past several years have helped hold down the cost of living.

And when the shocks have occurred, their impact has been quite small. Thus Wharton Econometric's Dr. Nariman Behravesh, in referring to the recent weakness in the U.S. dollar, figures that this will add only 0.5% onto the overall inflation rate by the end of 1987.

Given the above, it's easy to see why price analysts, the big econometric forecasting models, and purchasing executives are all optimistic about holding the line on inflation. Two independent surveys of the latter group are particularly encouraging. Specifically, 1) *PurchasingWorld* readers are calling for only about a 3% rise in the cost of goods and services they will buy this year, and 2) the vast majority of members making up the N.A.P.M. Business Survey Committee see small rather than large increases in the months ahead. Most of these hikes will be selective.

There is nothing to indicate that 1987 will be the last of a series of non-inflationary years. Indeed, the econometric models referred to earlier are almost as optimistic about 1988—putting the average advances in the GNP deflator and producer prices at 4%.

Energy outlook

It looks like a mixed year for energy users.

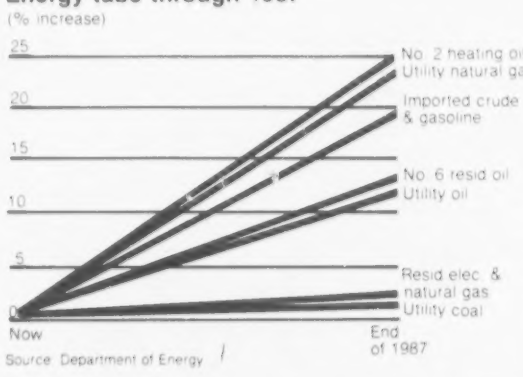
A new study by the Department of Energy, for example, suggests close to 25% boosts over the next 12 months for both #2 heating oil and utility natural gas. Gasoline could be up by more than 10% but coal and electricity should just barely inch ahead.

Here's a detailed rundown, premised on an $18/barrel imported crude oil price by the end of 1987.

- **Gasoline:** Figure on paying about $1.02 (average for all grades and services) by 4Q 1987.
- **#2 heating oil:** A 25% jump on the wholesale level would put tags in the 55¢/gallon range by the yearend.
- **#6 residual oil:** Government equations point to a late 1987 price near $17.10/barrel.
- **Natural gas:** Big differences are anticipated—depending upon the market. Thus residential rates will move up only 2% (to $5.74/mcf) by late 1987. But utility rates will zoom up 24% over the same period.
- **Coal:** Utility costs will remain low with only a 1% rise—bringing quotes up to only $1.61/million BTU in late 1987. This is only about half as high as tags on competing utility oil and natural gas.
- **Electricity:** There's good news on the residential front—only a 2% price increase is projected for 1987.

The new report also suggests a modest increase in overall U.S. energy consumption—up 2.4% in 1987 vs. only 0.4% in 1986. But oil will move the other way with only a 1.4% increase.

Energy tabs through 1987



Source: Department of Energy

Steel

CURRENT SITUATION: The USX strike is injecting bullishness into a sluggish market. The strike has permitted spot prices to rise 3% since mid-1986. **More small boosts are likely for flat rolled carbon products, some heavy structurals and plate lines, and stainless sheet.** But final 1986 consumption figures are disappointing—domestic usage was about 87 million tons—vs. 94 million tons in 1985. Shipments, too, dropped from 73 million tons in 1985 to 71 million tons in 1986.

DEMAND: Domestic consumption could slip even more this year—to 84-85 million tons. The drop in domestic shipments could be less precipitous—as import quotas become increasingly effective. In 1986 imports accounted for less than 23% of the market vs. 25% + in 1985. Any overall 1987 shipment gains seem impossible—**as key auto, machinery, and construction markets level off or even fall a bit.**

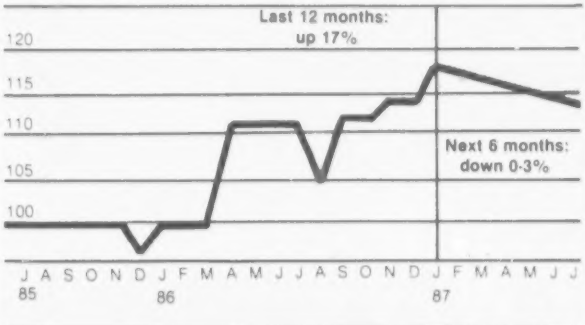
SUPPLY: There's excess—not even the USX strike can create a serious bottleneck. The industry's low 55-60% operating rate helps, as do imports. **Long-term prognosis is for better market balance**—as shipments level off to 70 million tons and additional capacity is retired. Capacity for 5.7 million tons of raw steel was shut down in 1986, and more closings are ahead. One analyst foresees another 20% reduction over the next 10 years.

PRICE OUTLOOK: Current firmness could soften once the USX strike is resolved and USX recoups lost business. Mid-year price averages could be slightly under current levels. Lower-cost producers (restructured integrated mills, non-integrated producers, and foreign sellers) will account for about 60% of the domestic market in the years ahead and will hold down longer-run advances. **Increases over this period will remain about 4%**—in line with the overall industrial inflation rate.

Steel market price

(cold-rolled sheet)

Index: June 1985 = 100



Trucks

Japanese producers are attempting to hold the line on prices as much as possible in an all-out effort to expand their share of the medium-sized market. Despite the strong Japanese yen, some Far Eastern manufacturers have not moved tags up at all on trucks in the 10,000-33,000 lb range. True, Hino Diesel Trucks (U.S.A.) has posted a small 2.9% increase. But this is offset by making previously optional equipment standard. While other truck producers have moved tags up 5%, they say that this will be it for the year.

Freight Rates

(% change)

	1986	1987
Rail	−4.5	−0.5
LTL	+3.0	+3.0
TL	+1.0	+1.5

Source: Standard and Poor's

Freight rates

New predictions by Standard and Poor's tend to confirm *PurchasingWorld*'s own forecasts that 1987 will be a year of very little price movement. In the case of Class I railroads, the big research outfit actually sees revenues per ton-mile falling another 0.5%—on top of the 1.3% and 4.5% declines of 1985 and 1986, respectively. The S&P projections for truck quotes aren't that bad—forecasts call for only 1.5% and 3% boosts on TL and LTL shipments. That's a carbon copy of last year's small increases.

Aluminum

A slightly more bullish outlook seems to be shaping up here. New forecasts suggest about a 2.5% increase in global consumption for 1987—better than the 0.2% decline estimated for 1986. Another firming sign: world stocks dropped by about 420,000 tons in 1986. This could mean higher prices, but no big runup in expected. If market trends follow their projected path, however, merchant ingot could be commanding 60¢/lb by sometime after mid-year—up about 7¢/lb from recent low levels.

Zinc

The trend is down—about 3¢/lb was shaved off producer prices in late 1986. It's in sharp contrast to the past year when the plating and alloying metal shot up from a low of 34¢/lb to as high as 47-50¢/lb. Reasons for the current weakness: 1) less-than-sensational demand by the auto and construction markets, 2) the sharp discrepancy between LME and U.S. quotes, and 3) the recent ending of a long Canadian strike. But any decline below the 40¢/lb mark seems quite unlikely—especially in view of low user and producer inventories.

Polypropylene

A new round of price hikes could be shaping up as existing tags begin to

Plastic resins

CURRENT SITUATION: Another new record was set in 1986. Nearly 34.5 billion lb of thermoplastic resins cleared the market—up 5-5.5% from 1985. **Biggest gains were in polypropylene and PVC, up 9% and 8%.** But every type ended up in the plus column. **Prices have also begun to pick up after the drop in early 1986 due to tumbling petrochemical feedstock costs.** Increases have hit both high- and low-density polyethylene, polystyrene, PP, and PVC. More hikes are expected this quarter.

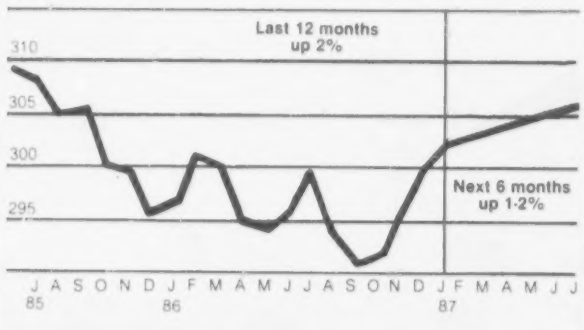
DEMAND: Look for a 5-6% increase in thermoplastics for 1987—twice as fast as overall economic growth. The gains will be uneven—individual resin increases are as follows: LDPE (3%), HDPE (6%), PP (8%), PS (6%), PVC (5%), and ABS (5%). The prognosis is bullish through 1990. And engineering plastics will do even better. A recent study suggests these synthetics will rise 8% a year through 1990—the biggest annual gains will be for polyester (12%), polyphenylene sulfide (11%), and polycarbonate (9%).

SUPPLY: Markets are now in better balance. This year, the average thermoplastic resin operating rate should be near 90% (vs. 71% in 1982). This reflects several consecutive strong demand years and a slower capacity buildup. **Demand increases equalled or surpassed capacity increases in all key thermoplastics last year except for ABS. The same is anticipated for 1987.** All major resins (except ABS) will operate in the high 80-90s range. ABS will operate only in the low 60s range.

PRICE OUTLOOK: Much depends on petrochemical feedstock costs. If oil climbs only a few dollars a barrel, upward pressure will be modest—despite good market balance. **Thermoplastic averages should rise only 1-2% by mid-year, and 2-4% over the next 12 months.** Engineering resin hikes will be more restrained due to competition and cuts in production costs.

Plastic resin prices

Index 1967 = 100



firm. More important, supplies have become quite snug as producers operate in the 95% range. Finally, demand continues to boom—another 8% gain is seen for this year on top of the big 9% advance in 1986. Best bet for prices: a 33-37¢/lb quote for the homopolymer grade within a few months—up 2-3¢/from levels prevailing as recently as last month.

Lead

Markets continue to hold up as lead moves in the relatively high 27.5-29¢/lb range. This is up significantly from the 18¢/lb low prevailing less than a year ago. Behind the buoyancy: 1986 strike interruptions which, combined with a 1.3% increase in global consumption, created a 95,000 metric ton shortfall. But with strikes over, the imbalances should gradually disappear. Indeed, combined with a seasonal drop in demand from battery makers, a few cents could be shaved off the going price by as early as spring.

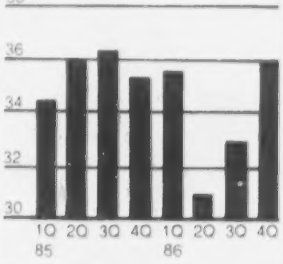
Copper

The red metal still seems unable to work up a head of steam. U.S. producer prices have been backing and filling in the low to mid-60s range since early last summer. And there's nothing to suggest anything different over the next few months. Beyond that, tags could begin to firm a bit—as U.S. inventories remain at their lowest point in more than a decade. On the other hand, there's still plenty of excess capacity around—and competition should remain keen. Witness, for example, U.S. producers offering caps over Comex quotes in the neighborhood of only 2-4¢/lb.

Polystyrene

General purpose

(Market price ¢/lb.)



Polystyrene

Look for new price-boosting attempts on top of last fall's boost which lifted the general purpose/crystal grade up 3¢/lb into the 35-37¢/lb range. If increases do not stick over the next month or two, they probably will later on in the year as demand rises 6%—at a time when capacity is being pared about 2.5%. Keep in mind that with operating rates expected to average in the 87% range, producers will have a lot more leverage than they did in early 1986 when utilization rates were only in the 70-75% range.

Chloralkalis

Prices are moving up. Off-

Paper availability

Don't worry about paper availability this year—or in 1988 or 1989. There should be enough to go around according to a new American Paper Institute (API) survey.

That study shows a 2.3% increase in overall production potential for 1987—not much under the increase in consumption which, according to Norma Pace, API vp and economist, should be up by about 3%.

Capacity increases planned for 1988 and 1989 should be somewhat smaller at 1.8% and 1.3%. But this, according to Mrs. Pace, is subject to upward revision.

API figures indicate that the original estimates of recent years have generally tended to rise as time went by. Thus final 1984, 1985, and 1986 capacity figures turned out to be 0.2%, 0.7%, and 2.1% above the levels first suggested.

All this is not to say that certain areas won't be a bit snug. Linerboard producers, for instance, could be operating at close to 100% of capacity this year. But this is manageable since capacity rates are predicted on specified operating parameters. One API spokesman explained "there should be enough paperboard to go around if buyers don't panic."

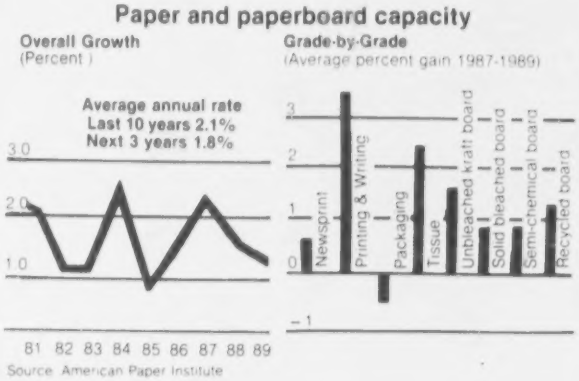
More assurance comes from the fact that there are a growing number of so-called swing kraft paper plants which can switch to paperboard if market conditions warrant.

On the other hand, it would be unrealistic to expect a return to the buyers' market of recent years. Increases in unbleached kraft paperboard capacity are now expected to average only 1.6% a year over the 1987-1989 period.

The situation is a bit different in printing and writing paper grades where capacity gains through 1989 should average 3.5% annually.

While API won't comment on prices, a report on profit margins does seem to suggest some modest upward pressure in the quarters immediately ahead. After-tax margins on sales at latest report were put at only 4.9%.

Paper and paperboard capacity



Source: American Paper Institute

list chlorine is now being boosted $10/ton—with average prices expected to move up close to $150/ton. That would be about $20/ton or 15% above year-earlier levels. Even bigger $15-25/ton boosts have been announced on co-product caustic soda. But the latter increases could run into some flak because of still-high inventories and import competition from Europe. In any event, the Midwest is regarded as the most likely area where a caustic boost might hold.

Computers

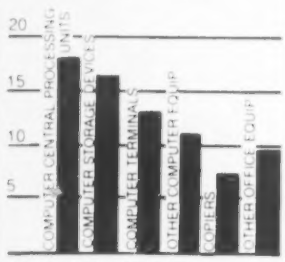
Demand for portables could more than double over the next 12 months. InfoCorp, a California-based hi-tech research firm, projects that nearly 750,000 units will clear the market in 1987—109% above last year. Behind the big gains, which can be expected to continue through the end of the decade, are a number of factors including improved display quality, increased functionality, lower weight, increasing availability of software, more compatibility with desktops, longer battery life (up to 10 hours on some models), and falling prices (tags on some models have been cut in half over the past year).

Benzene

The key petrochemical building block is on the rise again—prodded by some good derivative demand gains (especially from styrene), and recent production interruptions. Result: The spot price is approaching $1/gallon vs. only 85¢ as recently as this past November. But this should be it for a while as additional production from previously idled merchant hydrodealkylation capacity begins to hit the market.

Office Equipment

(% increase in dollar output)

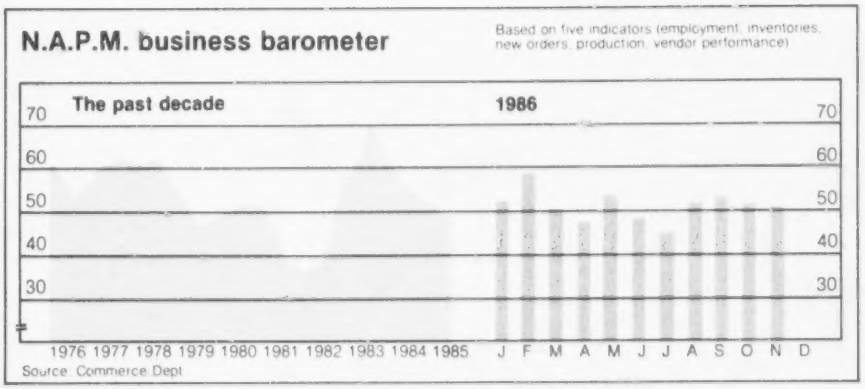


Source: Henderson Ventures

Office equipment

Markets should rebound strongly this year—with dollar output scheduled for a hefty 14% + rate of gain—a major turnaround from last year's 6% decline. And an even bigger 16% production gain is anticipated for the following year (1988). The new projections by Henderson Ventures suggest biggest advances will be in central processing computer units (up 18.7%)—thanks mainly to the revival of mainframe demand. Other impressive 1987 gains are seen for storage devices (16.8%), computer terminals (13.5%), copiers (7.6%), and a catch-all category that includes other office equipment and retail electronics (9.5%).

BUSINESS DATATRAK


N.A.P.M. business barometer
Based on five indicators (employment, inventories, new orders, production, vendor performance)
The past decade
1986
70
60
50
40
30
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985
J F M A M J J A S O N D
Source: Commerce Dept.

KEY ECONOMIC TRENDS

Copycat quarters will tiptoe in

The next two quarters are likely to be carbon copies of the last few—with weak gains in some areas and other sectors doing little more than marking time.

There should be enough strength to keep GNP in the plus column, however. Indeed, this strength is already quite apparent if you want to believe the N.A.P.M. Business Barometer (see chart above). This time-tested indicator of activity a few months out remains on the positive side of the neutral 50 zone—with the latest reading put at 52.

Not an earthshaking reading, but based on its correlation with GNP, it does seem to point to about a 2-3% annual rate of growth over the next 3-6 months. Factory output should enjoy a similar rate of growth.

Projections for continued—though relatively small—gains are based on more than just the N.A.P.M. barometer-GNP relationship. As noted in our Forecast 1987 roundup there are enough plus factors around to offset the negatives of disappointing capital goods spending and consumer demand. The economy will continue to be marked by relatively low interest rates, trim inventory levels, the absence of supply bottlenecks, low inflation, and a gradually improving trade balance.

That's not to say that poor consumer demand won't have its impact. The drop in auto sales, following the buying surge of last fall, will hurt.

More to the point, the study finds that only 3.4% of American families are thinking about a new car over the next few months.

Nor is consumer caution limited to vehicles. New home buying plans are also off. Ditto, intentions to buy big-ticket appliances.

All this is summarized in the Conference Board's consumer buying index. Note the big drop over the past month—a decline which has brought this key indicator to its lowest point in years (see chart).

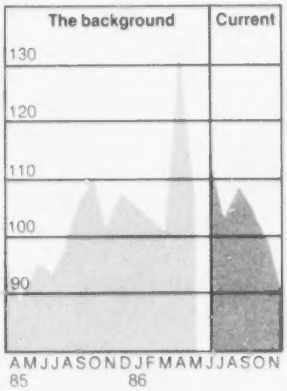
As noted earlier, however, there are plenty of offsetting pluses. And even some areas perceived to be weak aren't faring all that badly. Take construction awards (see chart)—a leading indicator of overall building activity. Housing has leveled off, but this has been offset by gains in the public works sector.

Then, too, housing isn't about to show any major decline—primarily because cheaper money could bring average mortgages (30-year, fixed type) down to near 9% by mid-1987.

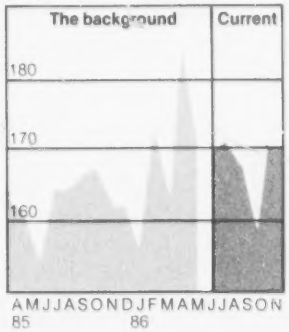
Another heartening sign is the continued strength in help wanted advertising (see chart). It means that business executives are still optimistic and planning new hiring to meet

Leading indicators

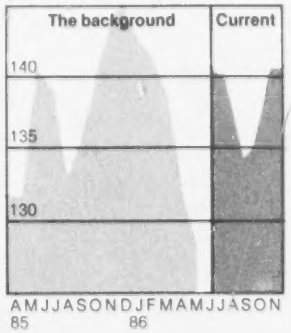
1. Consumer buying plans
(Index: 1985 = 100)



2. Construction awards
(Index: 1977 = 100)



3. Help wanted advertising
(Index: 1967 = 100)



gains they anticipate in the quarters ahead.

The latest employment figures also are mildly optimistic. They show nonfarm payrolls jumping by more than half a million in October and November, with some changes spilling over into the previously hard-hit goods producing area.

Finally, a few words on the trade balance are in order. Though improvement has been painfully slow, there are signs of change—especially in exports where gains in recent months have been reported in such areas as inorganic chemicals, office machinery, telecommunications equipment, electric equipment, and furniture.

Add in an expected drop in imports and the trade deficit could drop by a fair amount.

How this will impact on overall business depends on whom you talk to. But the general feeling is that as much as 1% could be added onto GNP totals this year—as contrasted to the estimated 1% negative trade effect of last year.

Labor will be talking in 1987

It looks like another fairly busy year for labor negotiators.

A new Labor Department compilation suggests that contracts covering 3.1 million workers under major collective bargaining will be up for renegotiation this year. That's about 35% of all workers.

Moreover, about two million of the affected workers will be in the private sector. Industries with the largest number of workers with contracts up for renewal are transportation equipment manufacturing (576,000—including those at Ford and GM in September), construction (377,000), and wholesale and retail trade (251,000).

State and local government bargaining will involve about half of that sector's 2.3 million workers under major agreements. About 813,000 are in local government, and the rest (over 300,000) are involved on the state level.

Also worth noting: 1987 deferred wage changes from contracts negotiated earlier are scheduled for about 4.1 million of the 8.8 million workers under major agreements. The changes will average 3.7%.

About 30% (2.7 million workers) are also covered by cost-of-living adjustment (COLA) clauses. Almost all are in private industry where COLA coverage applies to 40% of the workers. But such clauses are being phased out even in this sector—the comparable coverage figures for the end of 1984 and the end of 1985 were 57% and 49%.

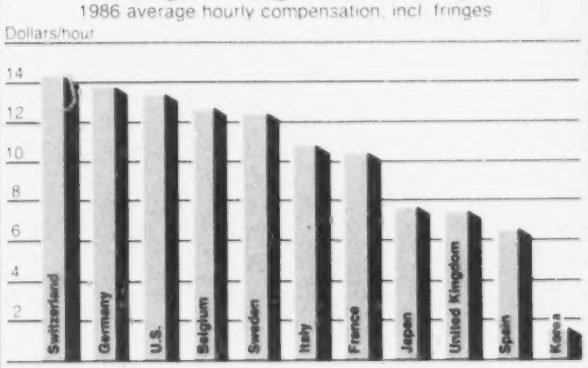
The 1987 Labor Calendar

	Number of agreements	Workers covered: Actual number (thousands)	Workers covered: % of industry involved
All industries	783	3,103	35.3
All private industries	471	1,988	30.4
Manufacturing	156	941	37.5
Food and kindred products	26	62	38.3
Apparel and other finished products	5	65	21.7
Electrical machinery equipment and supplies	12	51	18.7
Transportation equipment	25	576	66.7
Other manufacturing industries	88	186	29.4
Nonmanufacturing	315	1,048	26.0
Construction	162	377	36.6
Transportation, except railroads and trucking	20	85	33.1
Trucking	2	75	27.5
Utilities, gas and electric	27	81	33.3
Wholesale and retail trade	55	250	37.6
Health services	14	50	34.5
Other nonmanufacturing industries	35	129	9.1
State and local government	312	1,115	49.5
State government	69	302	35.0
Local government	243	813	58.4

Source: Bureau of Labor Statistics

How global wage rates stack up

1986 average hourly compensation, incl. fringes



Source: Business International

U.S. wages fall to European levels

American wage rates—with a major assist from the recent dollar devaluation—are now much more competitive with those of other industrial countries. Indeed, domestic hourly pay (including fringes) is now under that of both Germany and Switzerland.

These new dollar-calibrated pay comparisons, worked up by Business International Corp. (see chart for details), suggest a significant improvement over one year ago when American pay rates were 24% above those of their nearest European competitor.

Analysts at the New York-based consulting firm also point out that a gap of a dollar or less now separates U.S. hourly compensation from that of one-third of the 19 countries surveyed.

That's not to say that there still aren't some big gaps in the Far East. For example, the Japanese labor cost advantage (while down considerably from 1985) is still in the 70% range. This is far too high for comfort.

The point to keep in mind is that these differentials—whether large or small—are clearly shrinking. And this is one reason why most economists these days are cautiously

optimistic about narrowing our still-enormous trade gap.

Another positive sign aside from the weaker dollar: The U.S. is now making a better showing—even when viewed in terms of local currencies. Thus this past year's estimated 2.5% domestic pay-plus-fringe advance compares to the considerably higher figures noted for Japan (3%), Germany (4%), France (4.5%), and the United Kingdom (6%).

CURRENT PRICES

Price seesaw stuck in neutral

Moderation is still the order of the day. Industrial producer tags crept up only 0.2% in the past month—less than 2.5% at annual rate. And even more significant is the fact that overall quotes remain more than 4% under year-ago levels.

Much of the latter drop is due to oil which, in turn, has sent *PurchasingWorld*'s energy index down a hefty 31% under a year ago. And the easiness is continuing here. Another 0.4% decline was reported in the past 30 days—as softness in liquid petroleum gas, natural gas, and jet fuel offset small gains in gasoline, heating oil, and diesel fuel.

Also on a positive note for stable prices: While many lines are now edging up, there are still a fair number of offsetting declines. The accompanying table suggests that about one-third of the items regularly monitored by *PurchasingWorld* fell last month.

Chemicals—where declines were noted in inorganics, organics, and fertilizers—are a case in point. But there should be some bottoming out here as new first quarter boosts, many of which could stick, hit the market. Upward pressures have also been developing in plastics.

Capital equipment tags have also been heading higher—up 0.3% over the past month, sparked by increases in construction machinery, railroad equipment, and transformers. But these boosts should slow down in the months ahead as demand remains sluggish. It's not surprising that producers themselves are calling for only about a 1-2% increase here in 1987.

Paper also seems to be on firmer ground—as corrugated makers pass through recent linerboard boosts. Prices of most pa-

This month's breakdown

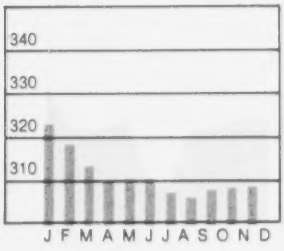
	Latest level (Dec)	% change from: Month ago	Year ago
Bearings	346.4	−0.1	0.2
Bolts, nuts, etc.	277.5	0.3	0.4
Chemicals, inorganic	294.8	−0.5	−1.5
Chemicals, organic	322.5	−0.4	−8.6
Concrete products	323.8	−0.2	0.1
Corrugated cartons	276.0	0.4	4.5
Cutting tools, small	292.2	0.1	1.3
Electric lamps (bulbs)	346.6	−0.3	−0.3
Electronic components	203.4	0.0	2.9
Fans and blowers	366.5	0.2	1.9
Foundry and forge products	361.6	0.0	−0.5
Fuel oil (residual)	450.8	−0.3	−49.5
Furniture, commercial	320.8	0.0	2.3
Gasoline	311.6	0.2	−45.2
Glass, flat	232.7	0.0	1.7
Glass containers	401.6	0.2	3.8
Gypsum products	352.4	3.1	1.2
Hand tools	385.8	0.1	2.4
Hand tools, power driven	240.2	−0.4	2.3
Industrial furnaces	396.4	0.1	1.2
Integrating and measuring instruments	237.8	0.2	2.1
Internal combustion engines	353.8	0.0	2.0
Lubricating oil	350.6	−1.6	−4.4
Lumber millwork	318.6	−0.3	1.9
Material handling equipment	297.2	0.1	1.1
Metal containers	362.5	0.0	1.2
Metal mill shapes (nonferrous)	299.5	−0.1	−2.2
Metal tanks	299.1	0.4	−2.1
Motors and generators	352.8	0.1	0.5
Motor trucks	330.6	−0.2	5.8
Office and store equipment	155.0	0.2	0.8
Paperboard	281.7	0.3	5.7
Paper boxes and shipping containers	274.7	0.2	3.2
Paper office supplies	241.0	0.6	2.1
Paint	282.4	0.0	1.8
Plastic resins	295.5	1.0	−1.6
Precision measuring tools	269.8	0.0	2.8
Pumps and compressors	264.5	0.4	1.3
Refractories	371.5	0.2	0.1
Rubber belts and belting	334.1	−0.9	−0.7
Scales and balances	232.7	0.0	1.7
Steel products	349.3	−0.2	−3.7
Switchgear	285.8	−0.1	1.6
Textiles, synthetic fibers	148.7	−0.1	−1.1
Textiles, gray fabrics	149.9	−0.2	−1.1
Tires and tubes	230.9	−1.3	−2.1
Transformers and power regulators	237.2	1.5	2.2
Welding equipment	302.0	0.1	2.2
Wire and cable	204.8	−0.3	−0.4

Industrial prices

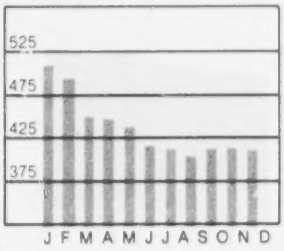
(Index: 1967 = 100)

1985 ■ 1986

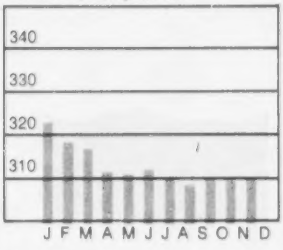
All items



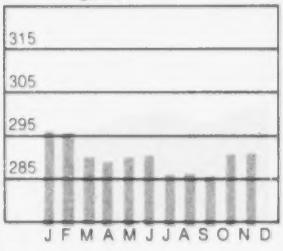
Raw materials



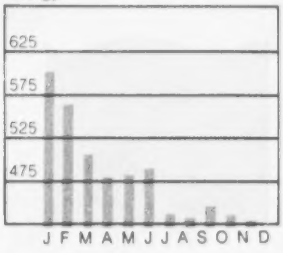
Semifabs, components



Finished goods



Energy



Source: Bureau of Labor Statistics

per grades are also rising—with the exception of coated groundwood and consumer tissues.

Metals, however, continue on the shaky side. Both aluminum and copper are having trouble posting increases, and zinc tags have actually declined recently. Ditto, most precious metals. Even steel could have some difficulty in making new 1987 increases stick.

Construction materials aren't all that buoyant either. Little change has been noted from month-ago to year-ago levels. Best bet here: More of the same for the next few months as building activity tops out and overcapacity continues to plague much of the industry.

STEEL SCENE

The bottom is in sight

Early 1987 demand for steel may be ready to bottom out. That's what new industry studies seem to suggest.

Purchasing executives responding to the latest N.A.P.M. steel survey aren't nearly as pessimistic about making near-term purchases as they were just a few months ago.

Right now, for example, one out of every four says he intends to increase receipts of the metal over the next three months. That's not too much less than the 29% who are still contemplating cutbacks. In any case, it's a big swing from just 60 days earlier when "increase" and "decrease" figures were 3% and 42%.

Distributors responding to the latest Steel Service Center Institute (SSCI) survey aren't nearly as optimistic on this point. No further deterioration *vis a vis* the survey results of a month earlier is indicated, however.

Another sign that steel demand may be ready to stabilize—albeit at a very low level: Inventory cutbacks have probably gone as far as they can go. Statistics on this point are impressive. At latest count, buyer holdings were down to less than a 1.9 month supply—a drop of more than 10% from the 2.08 reading of just three months earlier.

That's not to say that steel buyers are not still talking about further reductions. They are. But based on past stock/sales ratios, it's hard to see how users can get along on much less metal.

Steel service center inventories have also been falling lately. Andrew G. Sharkey, SSCI president, recently put them at their lowest levels since 1979.

One problem with all this: When replenishment is needed, some SSCI members fear they may have to pay more for their supplies. Specifically, about 38% see higher replacement costs by mid-

Satisfaction Through
REGIONAL PLUS™

How many times have you been forced to use two or more carriers because one either didn t want to—or couldn t handle both your regional freight and your transcontinental freight?

You know the headaches caused by dock congestion. By unnecessary paperwork. By time spent calling numerous carriers. ANR Freight s RegionalPLUS™ service can help reduce those headaches.

With our RegionalPLUS™ service all you need is just one carrier to handle both your regional and transcontinental freight needs. RegionalPLUS™ means regional PLUS transcontinental PLUS everything in between.

Contact your local ANR Freight System representative or call 1-800-525-2061.

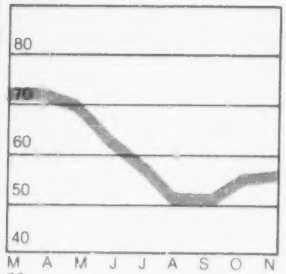
ANR

ANR FREIGHT SYSTEM

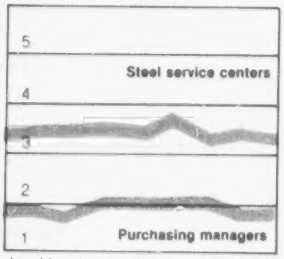
Circle 362 on card

Steel

Operating rates

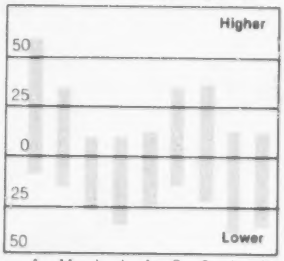


Inventories
(Months supply on hand)

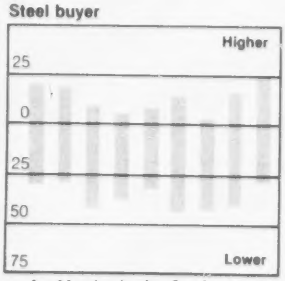


Demand
(Percent of respondents)

Service centers incoming orders



Steel buyer



1987—far more than the 9% who see declines.

A few add that they are also keeping an eye on USX. They feel that when the nation's largest producer comes back on stream, it will offer lower prices in an all-out attempt to regain lost market share.

Import prices, too, could be an additional price rise inhibitor. One out of three service centers says that overseas carbon steel is still being offered below comparable domestic levels.

And in stainless, an overwhelming 83% report lower foreign quotes—with 17% of these distributors putting the differential in the 11-20% range.

The picture is not all that much different on the buyers' front. Some 37% report lower foreign tags—with 4% of these people dubbing the differential as "substantial."

These same buyers, however, admit to some concern over near-term supplies. At least one respondent in eight over the 10 steel categories monitored by the N.A.P.M. says he is concerned about possible tightness over the next few months.

This could be one reason, aside from price, why these purchasing managers are not planning to slow down their dependence on foreign steel. All in all, some 13% of the respondents who buy foreign say they plan to increase their reliance on overseas metal—exactly balancing out another 13% who plan on lessened dependence. More important, this is the first time in over a year that the "lessening dependence" group hasn't predominated.

Import prices
(Compared to domestic)

Steel buyers

ABOVE 11%
SAME 52%
SLIGHTLY BELOW 33%
SUBSTANTIALLY BELOW 4%

Service centers (carbon)

ABOVE 39%
SAME 63%
5-10% BELOW 31%
10-20% BELOW 3%
OVER 20% BELOW 0%

Source: Steel Service Center Institute, NAPM Steel Buyers Committee

PROCUREMENT STATUS

And the buying is easy

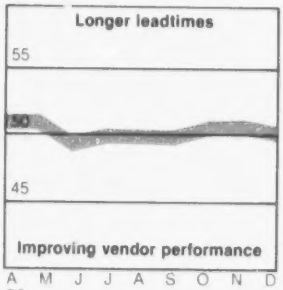
Not even traditional seasonal factors have been able to push leadtimes onto higher ground. After all, this is the time of the year when industrial ordering reaches its high point.

This past month, for example, the few stetchouts noted were neatly balanced by an equally small number of shrinkages—thus keeping *PurchasingWorld*'s exclusive leadtime index squarely on the neutral 50 mark. That has been the case—give or take a percentage point or two—for several years. This has been unmatched in other post-war business upturns.

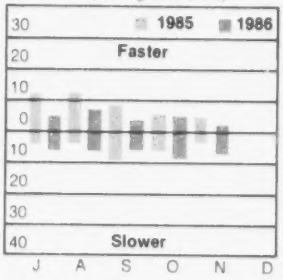
The N.A.P.M. speed-of-delivery index is also encouraging. Just 6% report slower deliveries, and only 3% note speedups.

Monthly procurement status report

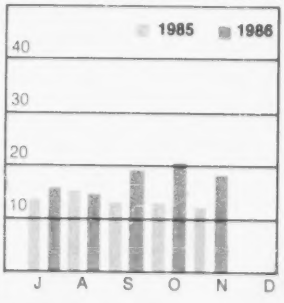
Leadtime index
A "diffusion" index based on 158 key commodities. Above "50" indicates a tendency for leadtimes to stretch out. Below "50" suggests improving vendor performance.



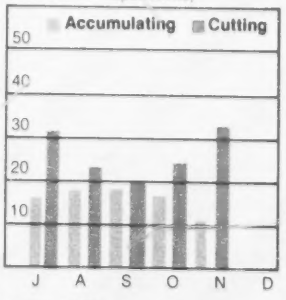
Delivery performance
(Percent reporting deliveries)



Forward commitments
(% committing 90 days or more in advance)



Inventory strategy
(Percent of respondents)



Source: NAPM

The rest (91%) report no changes in this important area.

Further confirmation of the easy buying situation comes from another N.A.P.M. survey question on forward commitments. Only 18% now say they are committing 90 days or more in advance for production materials—down from the 21% figure of the previous month. Conversely, the number of respondents committing 30 days or less increased from 38% to 41% in the past month.

Equally impressive is the fact that industrial purchasing managers continue to cut inventories. The 34% reducing stocks over the past month outweigh the 11% adding. While some of this is undoubtedly seasonal, it's hard to shrug off the fact that this 34% reduction figure is the biggest in three years.

Finally, if further assurance is needed, one only has to look at the demand-supply projections given in the Forecast 1987 section of this issue. These analyses suggest that operating rates will remain at or under preferred levels for virtually every single major U.S. industry.

That's not to say that there aren't worries. Titanium dioxide is the only item on the N.A.P.M. short supply list, but there are concerns about steel. They are probably due to temporary problems stemming from the USX strike.

Leadtimes and availability

Chicago: Capacitors have moved out 1-2 weeks (to 12-20). No other changes in electronic components. Ditto for chemicals—except a drop in surfactants (to 2-4). Aluminum and steel remain at late 1986 levels.

Cleveland: Not too many problems as business remains sluggish. Some key leads (in weeks): Glassines and greaseproof papers (4-5), hardwood lumber (2-3), softwood lumber (1-3), plastic shrink film (on demand), multiwall paper (4-5), and corrugated cartons.

Los Angeles: Grey iron casting delays have doubled (to 8-10 weeks). Some inching up in stainless coil (to 16-18), but other metals are holding steady: galvanized steel (12-14), aluminum tube (5-7), brass castings (8-10), and specialty wire (4-6).

Houston: Plastic resins continue to be available in about 4-5 weeks—with even shorter leads noted for steel fasteners (2) and corrugated boxes (3-4). But galvanized steel coils take a lot longer (16).

Philadelphia: Electronic leads are holding despite some demand pick-up. In fact one item, PC boards, has actually dropped—from 12 down to 8 weeks. Some other weekly leads in this sector: Standard keyboards (10), connectors (8-12), fuses (6-8), resistors (4-6), capacitors (6-8), and transistors (6).

Pittsburgh: Things remain pretty much the same—except for manganese where leads are out a bit (to 4 weeks). Other typical leads: plastic bags (3-4), corrugated and folding boxes (3-4), wirebound boxes (4-5), drums (1), waterproof papers (8), plastic packaging material (2-3), PVC (6), and packaging seals (1-2).

Satisfaction Through
RAPID RATE™

RapidRATE™ is a three-digit zip code pricing system we created to make your rating process quick and easy.

RapidRATE™ provides you with both regional and transcontinental rates, as well as service. You already know we specialize in regional and transcontinental freight. Now, with RapidRATE™ you can combine this service with the benefits of faster invoicing and easier auditing.

Select from four options to meet your needs: speed sheets, personal computer diskettes, magnetic tapes, and complete tariffs.

Contact your local ANR Freight System representative or call 1-800-525-2061.

ANR

ANR FREIGHT SYSTEM
a subsidiary of The Coastal Corporation

Circle 363 on card

BUSINESS DATATRAK

Leadtimes (in weeks)

	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	4	4	4
C-R Sheet (Chgo)	10	10	7½
Plate (Phil)	3½	3½	3½
Plate (Chgo)	4½	4½	2½
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	5½	5½	5½
H-R Bars (Chgo)	4½	4½	4
Cold-Drawn Bars (Phil)	5½	5½	5½
Galvanized (LA)	13	13	13
Galvanized (Chgo)	6½	6½	7½
Structurals (Chgo)	4½	4½	4½
Structurals (Hous)	17	17	17
Tubing (Phil)	5½	5½	5½
Grey Iron Castings (LA)	9	7	9
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	6
Pipe, Carbon (Hous)	17	17	17
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	16	14½	14½
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	7
ICs (Linear) (Phil)	9	9	11
Motors (Phil)	9	9	10
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	9	9	9
Relays (Chgo)	15	15	15
Resistors (Chgo)	9	9	9
Resistors, Wirebound (Phil)	5	5	5
Transformers (Chgo)	10	10	10

	Now	Month ago	Six months ago
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	2½	2½	1½
Plywood (Chgo)	3	3	1½
Plywood (Phil)*	1½	1½	1½
Softwood (Clev)	2	2	2
Softwood (Phil)	⅛	⅛	⅛
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Naphthalene (Chgo)	2	2	2
Paint (LA)	4	4	4
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	2	2	2
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	2½	2½	1½
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	2	2	2
PVC Resin (Pgh)	6	6	6
Titanium Dioxide (LA)	1	1	1
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	2½	2½	2½
Cartons, Corrugated (Hous)	2	2	2
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3

SPECIALTY SPRING STEELS

For Those Who Want It Right The First Time.

FOR PROMPT SERVICE IN SMALL QUANTITIES ...CALL "THE SPECIALISTS"

WRITE FOR CATALOG

WE CAN Slit, Shear, Level, Edge Condition, Cold Reduce ... all with the utmost precision.

WE INVENTORY 1010, 1018, 1020, 1035, 1045, 1065, 1075, 1080, 1095, 5160, 4130 HSLA, Blue Tempered Spring Steel, CR strip in all tempers and CR Annealed Spring Steel.

OUR LAB does Chemical Analysis, Tensile Testing, Ductility Testing, Hardness Testing.

OUR STOCKS ARE Cold Rolled, Hot Rolled, Hot Rolled Pickled, Annealed, stress relieved and as rolled in plates, strip, sheets, coils and bars.

Admiral®
STEEL CORPORATION
4152 W. 123rd St., Chicago (Alsip), Ill. 60658
(800) 323-7055 • (312) 928-9600 • (312) 388-9600

Circle 364 on card

FREE*!

We'll RUSH your order!

ALLOY RING provides the BEST DELIVERY & SERVICE in the BRAZING ALLOY BUSINESS...AT NO EXTRA COST!

Give us a call for Brazing & Soldering Preforms, Rings and Irregular Shapes in silver, copper, aluminum, bronze, brass, zinc & soft solder! You'll be glad you did!

*ALLOY will even provide FREE SAMPLES of any item used in your OEM production manufacturing.

CALL COLLECT (317) 844-8855

HH Alloy Ring Service
A Handy & Harman Company
177 West Carmel Drive, Carmel, Indiana 46032
(317) 844-8855

Circle 365 on card

	Now	Month ago	Six months ago
Shrink Film (Chgo)	6	6	6
Shrink Film (Clev)	1	1	1
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	1	1	1
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	3½	3½	3½
Glassine (Clev)	4½	4½	3½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	1	1	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NON-FERROUS			
Aluminum Coil (Chgo)	11	11	13
Aluminum Plate (Chgo)	12	12	12
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	11	11	12
Brass Castings (LA)	9	9	7
Brass Rods (Chgo)	9	9	7½
Brass Sheet (Chgo)	5	5	5
Brass Tube (Chgo)	7	4	8
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6

	Now	Month ago	Six months ago
Copper Tube (LA)	7	7	7
Copper Tube (Phil)	5½	5½	5½
Lead (Pgh)	2	2	2
Magnesium (Pgh)	2	2	2
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	2	2	2
Wire, Specialty (LA)	5	5	5
Zinc (Pgh)	3	3	2
MISCELLANEOUS			
Bearings, Domestic (Phil)	2	2	2
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	48	48	48
Compressors, Reciproc. (Hous)	39	39	39
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	9	9	7
Fasteners, Std. (Phil)	3	3	2½
Heat Exchangers, Carbon-alloy Steel (Hous)	21	21	21
Heat Exchangers, Hi-pressure (Hous)	26	26	26
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	1½	1½	1½
Pumps (Hous)	24	24	24
Pumps (LA)	11	11	13
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	17
Welding Supplies (Hous)	5	5	5

Satisfaction Through PERFORMANCE

Slow shipments mean lost dollars to your company. They disrupt your production schedules and can even cause lost sales.

We can help. ANR Freight System specializes in service. For example, we cover over 14,000 points direct so your freight doesn't wait to be interlined. And, as regular customers, you receive daily pick-up service—consistently. Finally, because of numerous direct schedules, your freight doesn't sit in break bulks. It's on its way to destination.

There you have it. Seventy-three years of service tradition. Unique RegionalPLUS™ service. Quick and easy rating with RapidRATE.™ And strong transit time performance.

Contact your local ANR Freight System representative or call 1-800-525-2061.

ANR

ANR FREIGHT SYSTEM

A subsidiary of The Coastal Corporation

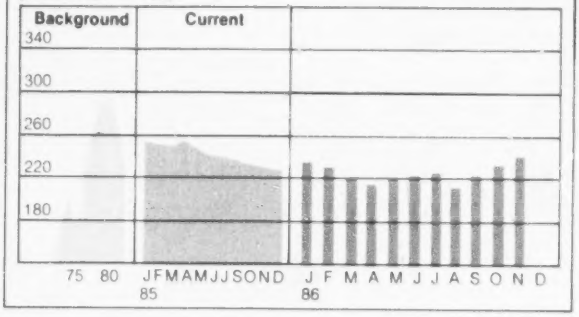
Circle 366 on card

BUSINESS DATATRAK

Raw material price barometer

(Index: 1967 = 100)

Latest month	243.7
Month before	235.5
Year ago	234.5



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	23.95	23.95	23.95
Steel, bars, Pitts., cwt.	23.95	23.95	23.95
Steel, bars, C.R., Pitts., cwt.	31.00	31.00	29.25
Steel, plates, Pitts., cwt.	18.25	18.25	23.25
Steel, plates, H.R., Pitts., cwt.	18.25	18.25	23.25
Steel, sheets, C.R., Detroit, cwt.	25.90	25.90	27.85
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.520	.525	.468
Antimony, N.Y., dealer, lb.	1.16	1.18	1.30
Beryllium-copper, cost ingot, lb.	5.65	5.65	5.35
Brass, red, 85%, [sheet], lb.	1.27	1.27	1.31
Brass, yellow, [sheet], lb.	1.22	1.22	1.13
Cadmium, N.Y., dealer, lb.	.98	1.07	0.74
Copper, electrolytic, wire bars, refd., lb.	.63	.63	.68
Copper sheet, over 24 in., lb.	1.36	1.36	1.40
Lead, common, N.Y., lb.	.275	.268	.188
Magnesium, pig ingot, [99.8%], lb.	1.53	1.53	1.53
Mercury, 20 fl. lots, N.Y., fl.	220.00	192.00	297.00
Molybdenum, oxide, dealer, lb.	3.03	3.15	2.60
Nickel, cathode, dealer, lb.	1.78	1.74	1.88
Platinum, dealer, oz.	477.00	537.00	346.00
Silver, N.Y., oz.	5.73	5.73	6.05
Tin, N.Y., dealer, lb.	3.06	2.86	4.49
Zinc, Prime West, East St. Louis, lb.	.440	.465	.330
Zinc, die casting alloy, No. 3, lb.	.525	.525	.415
PAPER			
Uncoated book #3 offset, ton	850.00	850.00	850.00
Watermarked bond, ton	985.00	985.00	985.00
Gummed sealing tape, carton	16.32	16.24	16.19
Shipping sacks, ton	390.00	390.00	390.00
Solid bleached paperboard, ton	580.00	580.00	550.00
Kraft linerboard, 42 lb., unbleached, ton	320.00	320.00	290.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.227	.214	.215
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.060	1.045	1.040
Cotton middling, 1", N.Y., lb.	.500	.433	.560
Printcloth, 48", 80x80, N.Y., spot, yd.	.90	1.05	.72
Army duck, 37", 13 oz., yd.	1.40	1.40	1.56
Blended printcloth, 64", 78x54, yd.	.80	.80	.80
20s combed yarns	1.74	1.74	1.95
Wool 64s, Staple, lb.	1.90	1.90	2.00

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.395	.395	.455
Ammonia, anhydrous, tankcars, Gulf Coast, ton	80.00	80.00	N.A.
Benzene, petroleum, tanks, Houston, gal.	.98	.85	1.20
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.58	.58	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.91	.91	.91
Methanol, snv., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.28	.28	N.A.
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.27	.27	.27
Polyethylene resin, low density liner film grade (market place), lb.	.295	.280	.310
Polypropylene, homopolymer grade (market price), lb.	.325	.325	.350
Polystyrene, general purpose grade (market price), lb.	.36	.35	.35
Polyvinyl chloride, pipe grade (market price), lb.	.285	.275	.250
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.23	.22	.26
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	152.50	157.50	157.50
Sulphuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.77	.77	.69
Xylene tanks, gal.	.765	.800	1.360
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	327.75	328.35	308.70
Lumber 2x2 pine, mbf, cl	316.20	316.60	294.05
Plywood, plyform, ⅜", msf, cl	592.35	592.35	578.85
Plywood, ⅜", msf, cl	392.40	392.45	367.75
Cement, bulk, ton, tl	63.28	63.28	64.98
Sand, ton, cl	6.62	6.62	6.41
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.27	48.15	48.12
Crushed stone, 1½", ton, cl	7.83	7.83	7.86
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	0.84	0.82	0.82
Gypsum sheathing, ½"x1"x8", msf, tl	213.07	215.07	212.99
Brick, common, per thousand, tl	186.51	186.51	184.61
Asphalt paving, AC-20	127.08	127.36	176.14
Concrete sewer pipe, 12", prem. joint, per foot, cl	7.36	7.36	7.14
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf., bbl.	11.50	10.50	21.25
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	17.00	14.75	28.75
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	.375	.415	.770
Gasoline, 94 oct., reg., Chi., tank car, gal.	.428	.436	.798
Heating oil, No. 2, Chi., bulk, gal.	.430	.428	.868
Heating oil, No. 2, N.Y., bulk, gal.	.436	.420	.858
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.50
Jet kerosene, gal.	.433	.433	.760
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	.240	.240	.345
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	79.00	78.00	69.00
Steel, No. 1 hvy., dlvd., Chi., ton	72.00	72.00	68.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	.550	.545	.565
Copper, No. 2, East, wholesale buy, dlvd., lb.	.465	.465	.495
Brass, red, East, wholesale buy, dlvd., lb.	.510	.505	.525
Brass, yellow, East, wholesale buy, dlvd., lb.	.330	.330	.290
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.315	.315	.285
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.335	.330	.310
Zinc, old, East, wholesale buy, dlvd., lb.	.200	.200	.110
Lead, clean solids, East, wholesale buy, dlvd., lb.	.165	.168	.100
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	24.00	28.00	9.00
Paper, old corrug. box, dlr., N.Y., ton	20.00	24.00	7.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	.090	.090	.085
White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb.	.100	.105	.150

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

Forecast Lottery '87

PurchasingWorld: What are your long-term (10-year) real growth and inflation projections?
Behravesh: Over the next ten years real growth in the U.S. will average about 3% and inflation about 5%.

PurchasingWorld: Over the long haul, which industries will be strongest? Weakest?
Behravesh: The service and service supplying industries will show the healthiest growth patterns. This group would include business and communications services, computers, and electronic components. Weaker growth will be in sectors dependent on housing and autos which will merely hold steady over the long haul. Especially weak sectors such as leather and some basic energy industries, will actually see declining production.

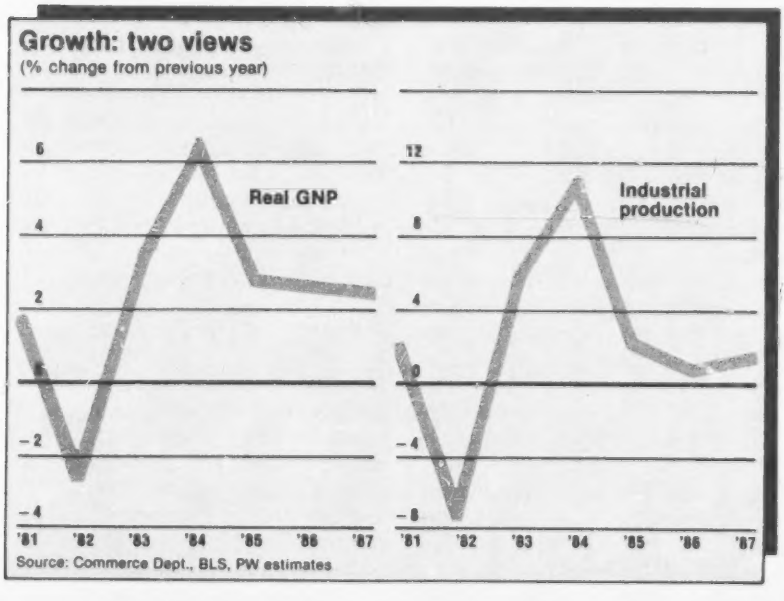
PurchasingWorld: Any advice for purchasing professionals in 1987?
Behravesh: Purchasing managers should continue to keep tight control of their inventories. There should be room for inventory building later in 1987 and in 1988. Also, buyers should not worry inordinately about inflation. A slow upward movement in prices is all that we should see. Buyers should find that prices for many imported goods will advance more than comparable domestic prices, signaling a logical shift in some buying patterns.

Enough optimism to make economy pop to the top

Can we take another year of so-so growth, just like 1986? We may have to—as ***PurchasingWorld***'s chief economic consultant, Dr. Louis J. Paradiso, feels that 1987 could be a carbon copy of the year just ended.

While Paradiso feels that inflation will pick up a bit (primarily because we don't have last year's cushion of falling oil prices), increases, for the most part, will be relatively modest.

Don't be fooled, however, or lulled into complacency. The veteran forecaster sees plenty of problems with still-high federal budget and trade deficits and continuing high unemployment. Some of the basic manufacturing industries will find it hard to get back into the plus column—as purchases by some of the nation's key material consuming industries—notably autos and housing—actually drop a bit under last year's levels.



The farm segment should continue to present problems for equipment and other sales. Finally, there's capital equipment where overcapacity and the new federal tax bill will combine to put a damper on spending for new plant and equipment.

In spite of all of the above, there are enough plus factors around, says Paradiso, to keep the GNP moving upward. Momentum of the last few years and continued consumer optimism will help. Even more important is the absence of excesses that in the past have precipitated economic downturns.

Inventories, for example, remain quite low. And the rising interest rates of other recovery periods are conspicuous by their absence this time around. Rates have actually been edging lower in recent months.

Then, too, the weakening dollar should have some impact on our negative trade balance—if not now then certainly by the second half of the year. And, finally, there is the absence of inflation—something that invariably leads to a boom and bust cycle.

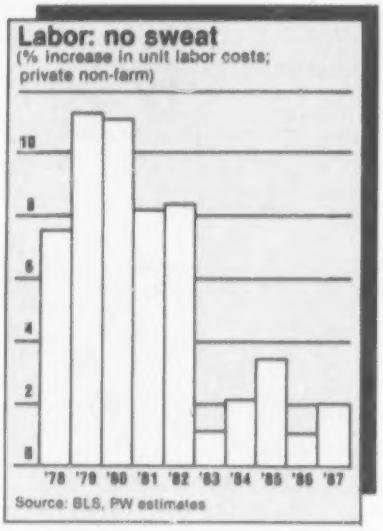
In short, Dr. Paradiso is cautiously optimistic. He feels that next year could be yet another year of economic growth because of our improving international trade position and because 1988 will be an election year—an open invitation, in Paradiso's words, to "prime the pump."

At the same time, Paradiso says buyers will have their work cut out for them. On the price front, for example, overseas bargains will be a bit harder to find. And domestic producers may be more aggressive in pressing for price increases.

Paradiso also suggests a selective view of the day-to-day economic news. "With the picture so mixed, there will be negative and positive statistics. And it will take some careful analysis to discern underlying trends—as it might affect an individual industry or firm."

Here's a more detailed sector-by-sector analysis of what Paradiso expects over the next year:

■ **Growth:** Real GNP could vary significantly on a quarter-by-quarter basis—averaging out near 2% for the first half, then slipping during the summer, only to pick up again by fall as our improved merchandise trade situation begins to have some impact.



■ **Prices:** The lack of inflationary pressures is seen in GNP deflator projections—where increases over each of the next four quarters are expected to hover in the 3-3.5% range. That's slightly above last year's estimated 2.6% advance, a figure that was unduly influenced by the sharp fall in energy tags in 1986.

On a relatively optimistic note, producer finished goods prices will again outperform the GNP deflator advancing by only 2.5% for 1987. There are several reasons for the lower rate of increase: 1) More inflation-prone services are excluded; 2) unit labor cost pressures will remain minimal; 3) excess raw materials will continue to glut world markets; and 4) overcapacity still plagues many finished goods industries, and imports will continue to be a factor in many markets.

Consumer prices should mirror the GNP deflator with an overall advance of nearly 3.5%—up somewhat from 1986's estimated 2% advance.

■ **Labor costs:** The news here is good. In 1986, wage rates moved up only 2.5% in the non-farm business sector. Factor in a 1.5% productivity offset, and the more important unit labor cost figure rose only 1%.

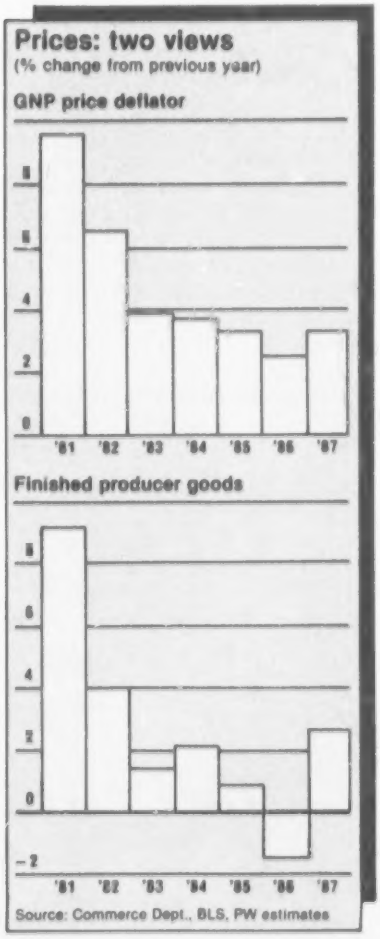
Next year should be almost as good. While wages might accelerate somewhat to 4%, productivity will move up 2% as new automated equipment is added and big companies trim their staffs. Look for unit labor costs to increase only 2%—bringing very little labor cost pressure on prices.

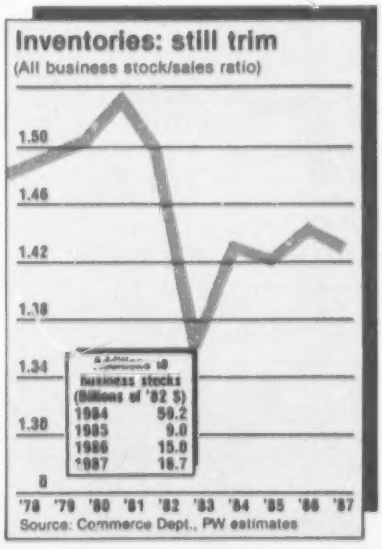
■ **Inventories:** While slowly rising in volume, stocks remain quite low relative to sales. Thus the all-business inventory sales ratio probably averaged out at near 1.37 over the past year—remarkably low given the maturity of the current business upturn and the less-than-expected demand gains in many sectors of the economy.

In any event, the ratio is far under the 1.51 peak hit back in 1982. The recent failure of this yardstick to rise can probably be attributed to a combination of factors: abundant supplies, absence of any hedge buying, computerized inventory controls, and the gradual shift over to the just-in-time inventory concept.

As for the new year, little overall change is expected—with the ratio continuing to move in the low 1.37-1.40 range. This doesn't preclude some modest volume additions, but the volume gain will again be only $15 billion (in 1982 dollars)—roughly the same as reported over the past year.

■ **Profits:** After-tax earnings will barely inch ahead reaching only $140 billion in 1987—up just $2 billion from last year. Margins, trailing traditional levels, will also leave a lot to be desired. On the other





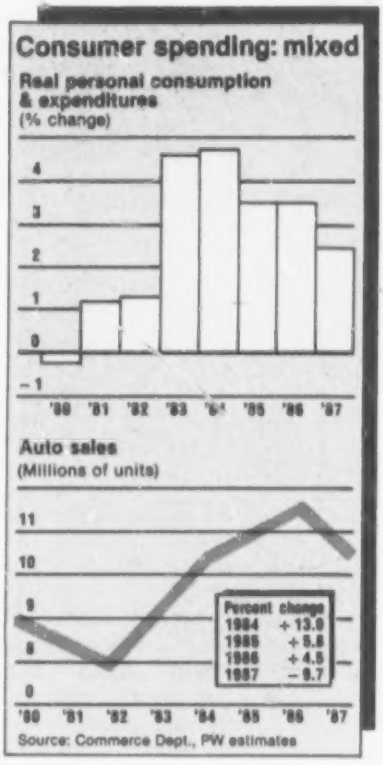
hand, earnings are more realistic than they were a few years back because the illusory inventory profits stemming from inflation at that time have just about disappeared.

■ **Capital investment and capacity:** Overcapacity and recent tax moves could drop total investment spending as much as 5% under 1986 levels in real terms—all on top of 1986's 2% decline. This could be one of the weakest sectors of the economy over the next 12 months.

Nevertheless, spending here should be high enough to bring an increase in overall manufacturing potential—but probably only 1-2%.

As for operating rates, superimpose the projected 1-2% increase in industrial production on a capacity increase of the same magnitude—and factory utilization will barely break through the low 80% barrier. This will guarantee a continued buyers' market in most industrial sectors.

■ **Unemployment:** The jobless rate has been stuck around the relatively high 7% level for several years—even higher for blacks and other minorities. One problem: the lack of enough new jobs. Plant closings and higher productivity have combined to offset gains due to moderately higher economic activity.



■ **Interest rates:** The prime rate could edge down another 0.5-1.0% to the 7-7.5% range—on a combination of a relatively easy Fed policy and poor loan demand for inventories and fixed capital expenditures. Mortgage rates under 10% for conventional 30-year fixed-rate loans could also edge lower—to the 9-9.5% range by spring or summer.

■ **Housing:** Lower mortgage rates have stimulated building activity. New starts, for example, reached the 1.85 million level in 1986, up from the 1.74 million unit reading of the previous year. The higher cost of new homes will take its toll, however, even with slightly lower borrowing costs. Result: Housing starts will do well to top the 1.75 million rate in the quarters just ahead.

■ **Consumer spending:** Lower tax rates should help appliance and non-durable sales—more than offsetting declines in new auto sales. The latter, incidentally, are expected to drop to 10.5 million units in 1987—considerably under the 11.5 million that cleared the market over the last year when low-cost financing gave the industry a badly needed shot in the arm.

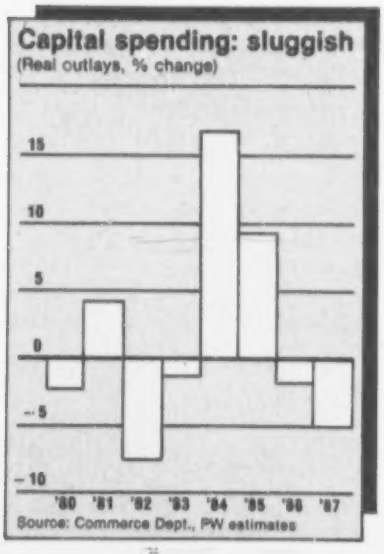
Taken together, spending for personal consumption may continue to advance—as consumers persist in spending more than their traditional share of income on goods and services. Savings as a percentage of spendable income, for example, will remain under 5% as compared to the normal 6% rate.

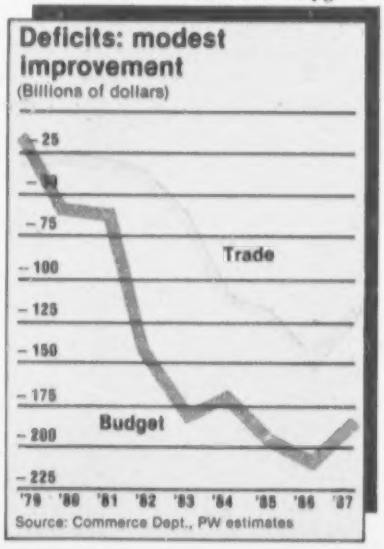
This, in turn, will permit about a 2.5% increase in real personal consumption expenditures over 1987. True, this is a bit under the 3.5% pace of both 1985 and 1986—and well under the 4.5%-plus rate of the previous two years. But it's a gain nevertheless. Indeed, the projected advance in this largest segment of the spending pie is the key reason why the economy will continue its trend upward in 1987.

■ **Deficits:** Some improvement in the federal deficit is foreseen as Congress cuts spending. Best bet: a red ink total between $180 billion and $200 billion for the year on a national income account basis. That compares with about $210 billion for the year just ended.

Similar improvement is anticipated in our merchandise trade deficit. Specifically as import prices continue to rise and export tags are kept in bounds (all due to a weaker dollar), the trade shortfall could drop to nearly $120 billion this year,

...continued on pg. 43





compared with $150 billion last year. Most of the progress, however, should come in the second half of the year.

But it would be unrealistic to expect any really spectacular improvement as foreign suppliers do all they can to hold onto U.S. market share; i.e. by cutting costs, by absorbing exchange rate losses, and by simply dumping wherever and whenever they can get away with it. Also note that the dollar has not really weakened for many countries in Asia and the Americas. These nations will probably continue to make import inroads into the U.S. market.

Keep this in mind: It could be several years before we are able to reduce the trade deficit to under the $100 billion level. Moreover, any return to the $65 billion levels of 1980-81 seems little more than wishful thinking at this time.

Number crunchers tone down forecasts

Modest growth with minimal inflation is still the order of the day—not only for the next 12 months but for 1988 as well. That's the consensus of the four big econometric forecasting models regularly monitored by *Purchasing-World*—Chase Econometrics, Data Resources Inc., Wharton Econometrics, and Merrill Lynch.

All of these mathematically-derived projections have toned down 1987 growth estimates. One year ago and six months ago, they were projecting GNP increases of 3.4% and 3.6%, respectively. That forecast has dropped to 2.4%. But it could pave the way for a better 1988. Right now, for example, the betting is that we can achieve a 3% growth rate in 1988—with industrial production growing at a slightly faster 3.7% pace that year (see accompanying chart).

While hardly spectacular, this does represent some modest acceleration. More important, if these projections are correct, 1988 would mark the sixth straight year of economic upturn.

The inflation outlook is also quite encouraging. Despite continued demand gains, the GNP price deflator is expected to advance only 3.0% and 3.9% in 1987 and 1988.

Finished producer quotes (the area of more immediate concern to purchasing executives) could actually fare better—with only a 2.2% advance anticipated for 1987—though some acceleration to near 4% is seen for 1988. While these increases in the finished producer price index mark a change from this past year's estimated 1.4% decline, remember that 1986 was distorted by the sharp drop in energy tags. Take energy out of the figures and the producer prices actually rose a bit in 1986.

Also on the encouraging side is the fact that interest rates are expected to continue to edge lower. The prime borrowing charge, as seen by the average of the four econometric models, could slip to near 7.5% over the next 12 months. That's more than a full percentage point under the 8.7% level projected just six months ago.

That's not to say that everything will be coming up roses. Unemployment is expected to remain relatively high—at 6.9% and 6.6% in 1987 and 1988 respectively.

Lending confidence to these forecasts is the fact that all four models are fairly close to one another. In the producer pricing sector, for instance, only one percentage point separates the 1987 projections which range from 1.5-2.5%.

There's an even smaller range in consumer prices. In fact, only 0.5% separates high and low forecasts for 1987 and 1988.

And the same is true of industrial production where only 0.7% separates individual 1987 forecasts—a range which narrows to only 0.3% in 1988. The only disagreement seems to be in interest rates where the prime borrowing charge is expected to vary from a low of 6.5% in 1988 (Merrill Lynch) to a high of 9% (Wharton Econometrics).

What big models predict

Real GNP (% change)	1987	1988
DRI	2.5	3.3
Chase	2.4	2.7
Wharton	2.9	3.2
Merrill Lynch	1.9	3.1
AVERAGE	**2.4**	**3.1**
Industrial production (% change)		
DRI	2.4	3.8
Chase	2.1	3.6
Wharton	2.7	3.5
Merrill Lynch	2.0	3.8
AVERAGE	**2.3**	**3.7**
GNP price deflator (% change)		
DRI	2.5	3.5
Chase	3.0	3.8
Wharton	3.5	4.4
Merrill Lynch	2.9	4.0
AVERAGE	**3.0**	**3.9**
Finished producer prices (% change)		
DRI	2.3	3.9
Chase	1.5	3.0
Wharton	2.4	4.6
Merrill Lynch	2.6	4.4
AVERAGE	**2.2**	**4.0**
Consumer prices (% change)		
DRI	3.6	4.5
Chase	3.4	4.4
Wharton	3.6	4.9
Merrill Lynch	3.0	4.3
AVERAGE	**3.4**	**4.5**
Prime interest rate (%)		
DRI	7.6	7.1
Chase	7.3	7.9
Wharton	8.1	9.0
Merrill Lynch	6.7	6.5
AVERAGE	**7.4**	**7.6**
Unemployment rate (%)		
DRI	6.8	6.5
Chase	6.9	6.8
Wharton	6.6	6.3
Merrill Lynch	7.1	6.9
AVERAGE	**6.9**	**6.6**

Forecast Lottery '87

Room at the top for executive bullishness

The news from the nation's executive suites is good—top management is moderately bullish about 1987.

The executives polled in McGraw-Hill's 33rd annual plant and equipment survey see positive sales performance and very little inflation for the current year. But they also expect capital spending to continue to perform poorly.

Here are some of the specific findings of the McGraw-Hill study:

- **Demand:** Corporate bigwigs are betting on a 5.2% increase in real sales volume over the next 12 months. Look at durable goods separately, and the figure is an even more impressive 5.5%.
- **Prices:** Problems should be minimal here. The overall 3.9% increase indicated for all manufacturing represents a big difference from this past year's small decline. But most of the swing is due to zigzagging energy tags—as last year's sharp drop in oil gives way to an estimated 8.9% advance in 1987.
- **Capital investment:** A small 0.4% gain in current dollar terms is projected. But even this is an exaggeration. Higher plant and equipment procurement costs suggest that real (or physical) reinvestment may actually decline.

On the price front, only one durable goods sector—autos—will move up by as much as 4%. More important, the overall price increase for durables is estimated at only 2.2%—not all that much more than noted during the past year.

Similar restraint is indicated in nondurable tags (excluding oil). Textile averages are expected to rise by only 1.2% this year—with chemicals and paper advancing by just 3.1% and 3.2% respectively.

The price outlook for most nonmanufacturing areas is equally encouraging. Indeed, some fractional declines are actually seen in sectors such as rail transportation, gas utilities, and communications.

The price projections for plant and equipment items remain in the tolerably low range, too—with a 3.6% increase anticipated for 1987 as a whole. But this could prove to be on the high side in view of the very small boosts and the less-than-sensational capital equipment outlook described above.

The reasons for the rather gloomy investment outlook aren't too hard to spot. McGraw-Hill analysts pinpoint several factors: 1) the huge trade deficit which reduces U.S. factory activity, 2) relatively low oil prices which have discouraged oil patch spending, 3) a low 79% overall factory operating rate, and 4) reduced investment incentives under the new tax law.

Plant and equipment spending is expected to be especially disappointing in the paper industry where current dollar outlays are likely to drop 24% over the new year. Other negative current dollar investment figures in the manufacturing sector are seen for the automotive, aerospace, rubber and plastics, petroleum, and food industries. Capital spending could also decrease in such nonmanufacturing sectors as mining, railroads, electric utilities, and communications.

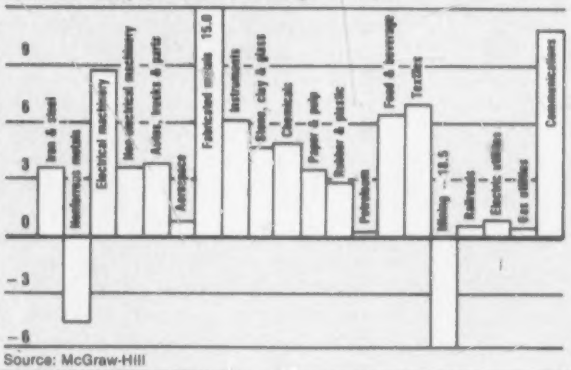
Further mention should be made of real sales—since the 5%-plus overall average noted earlier hides some significant industry-by-industry variations. Best showing is expected in fabricated metals where a hefty 15% volume increase is projected. Other big pluses are projected for electrical equipment (9%), instruments (6%), textiles (7%), and communications (11%).

On the other hand, several industries may actually experience declines in activity. Nonferrous producers predict that real sales will be off 4.5%, and mining insiders see a big 18.5% decline.

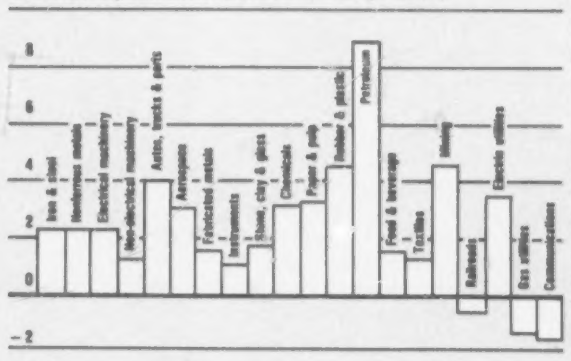
In short, it looks like another mixed year ahead—with few indications of the solid across-the-board pickup currently being bandied about by overly optimistic Administration spokesmen.

How top management views the new year

Real sales expectations (% change '86-'87)



Inflation expectations (Expected % change '86-'87)



Source: McGraw-Hill

Buyers betting on another good year

What's another expression for "cautious optimism"? Our readers are again hedging their bets and saying that they see only "modest increases" in their own businesses. And they also feel that any increases in the prices they pay for goods and services will be only modestly above the low levels experienced in 1986.

It's also reassuring to note that few expect leadtimes to stretch out—and virtually no one anticipates any shortages. Or as one East Coast buyer explains, "supply-demand conditions suggest that the buyers' market of the past few years will continue. While some problems will undoubtedly crop up, we will make it through 1987 with few, if any, crises."

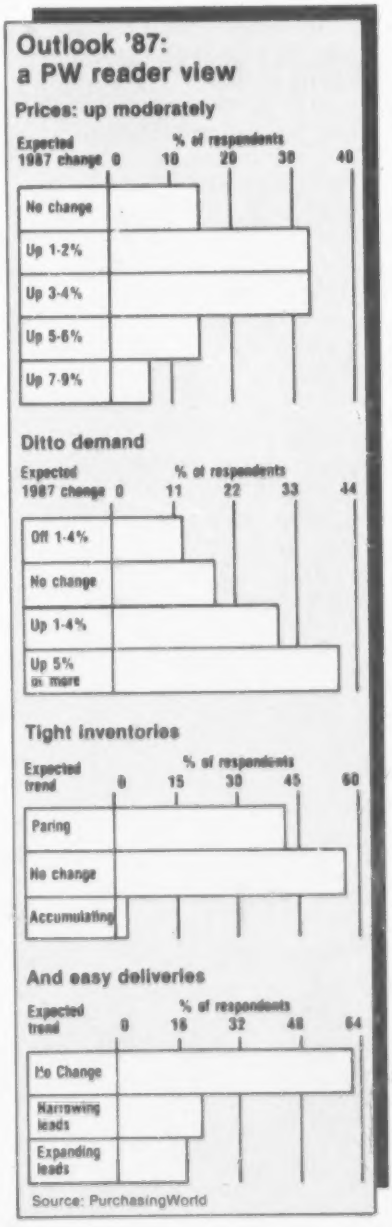
Here's a more specific rundown—based on a new *PurchasingWorld* nationwide survey of industrial purchasing executives:

- **Prices:** The overwhelming majority of survey respondents (85%) expect procurement bills to rise. But most see increases averaging out in the very manageable 1-4% range—with not one single respondent anticipating a double-digit advance. All in all, the average increase is put at 3.4%.

This does represent a bigger advance than last year for three out of every five respondents, but only 3% call it a "major" acceleration.

On a less rosy note, the upward trend will become increasingly apparent as the year wears on. Thus, 53% expect 1987 boosts to be higher in the second half than over the next two quarters. The rest of the respondents are divided: 44% see a flat rate throughout the year, while 3% see second half deceleration.

- **Demand:** An impressive seven out of 10 PMs expect their companies' activity to top that of last year—far outpacing the 12% who see a small (1-4%) decline and the remaining 18% who project no change.
- **Inventories:** Only a miniscule 3% expect to beef up stock levels—despite the forecasted increase in activity. More significant, 41% say that some additional paring may be in order—over and above reductions made over the past 12 months.
- **Delivery performance:** The basically stable situation is highlighted by the fact that little change in leadtimes is expected. The actual survey results: no leadtime change (62%), narrowing leads (21%), expanding leads (only 17%). Only one buyer is worried about availability—and even he limits his concern to certain electronic components.



That's not to say that purchasing executives expect a problem-free 1987. Some of the difficulties and concerns mentioned include 1) stepped-up supplier attempts to boost prices, 2) uncertainty about oil, and hence all-energy prices, 3) higher contract service costs due to increased liability requirements, 4) closing down of some supplier plants, and 5) too much reliance on overseas vendors.

But despite all of this, PMs are generally confident that they will be able to keep things under control. Aside from inventory reductions and continued hard-nosed bargaining, other purchasing strategies noted include 1) insistence on top quality, 2) putting more items on long-term contracts, 3) more emphasis on using regional suppliers, 4) increased substitution, 5) a closer look at generic products, and 6) closer buyer-vendor liaisons.

On the latter score, one Chicago-based purchasing executive observes, "We're making a concerted effort to manage the source rather than the transaction." This means, he adds, a closer look at both vendor costs and operating procedures.

One thing buyers disagree on, however, is the optimum number of vendors. Some are looking for more sellers in order to beef up their bargaining clout, while others feel that moving closer to a single source may well be the best answer.

But whatever the tacks being taken, PMs are pretty much agreed on one overall goal: to do better than the general industry price trend. As one purchasing vp sums it up, "We want to come in 1-2% under levels suggested by an outside cost index of the items we buy. We did it last year—and I'm betting we can do it again in 1987."

Forecast Lottery '87

Passive components

What about the other major sector of the industry—passive components? Some price increases are already apparent because of the weaker dollar and hence lessened overseas competition.

Even standard products such as coaxial connectors may experience upward price movement because, during 1985-1986, prices degraded to the point that manufacturers were unable to make a profit. Thus, even in cases where U.S. component firms are manufacturing their own components, they often have to contend with the rising cost of imported materials, like Japanese film used for film capacitors.

But here, as well as in active components, there will be exceptions to the rule—with a few product lines such as relays anticipating further price declines. Also since military or semicustom did not suffer the same downward pressure as standard products did, their prices will only tend to appreciate slowly in 1987. This is especially true since military market growth will be quite sluggish in 1987.

In any case, here's a detailed supply-demand-price summary for the passive sector (also see accompanying chart):

- **Relays:** Reed and solid-state relay prices are dropping slowly—the consequence of meager demand from electronic equipment OEMs. However, manufacturers anticipate stronger sales. Leadtimes are in the 4-8 week range. Solid-state relay prices are still declining in an attempt by producers to gain market share from electromechanical types. Growth in this market will come from the inclusion of the solid-state relay in an I/O module.
- **Switches:** Prices have begun to turn around. Pushbutton, rotary, and circuit breaker switches have suffered less price degradation than other types because they tend to be either semicustom designed for commercial users or military components that experience consistent demand. Leadtimes are expected to remain firm. U.S. switch production will exceed U.S. consumption through 1990, partly because of the trend of designing out switches in electronic equipment when possible.
- **Connectors:** With the exception of rectangular types, prices will recover following the debilitating price declines connector makers suffered in 1985. Connecter firms look to 1987 for solid improvement in demand. Because many of the offshore connector firms are in countries like Korea and Taiwan whose currencies are tied to the dollar, sharp price increases caused by the yen's appreciation are not expected to occur. In addition, a growing U.S. supplier base has kept prices down.
- **Capacitors:** After slumping in 1985, capacitor prices were more stable in 1986. Through 1990, all capacitor types (except monolithic ceramic) will experience average annual price increases of 2-5%. Leadtimes here are still short but will soon begin to stretch a bit. The weakening dollar has caused offshore-sourced material prices to rise, which will be another factor in the near future.
- **Resistors:** Prices of several types of resistors are rising as Japanese producers pass on the effects of the yen's appreciation to U.S. OEM consumers. At the same time, manufacturers from other countries whose currencies are tied to the dollar are using this opportunity to garner a share of the U.S. market—keeping the prices of other resistors down. Chip resistors will see especially large price reductions as manufacturers descend the learning curve and realize the cost savings of large-scale production.
- **Printed circuits:** Demand for PC boards has firmed after the disastrous drop in billings that occurred during 1985. But double-sized PC boards still experienced price increases in 1986 and leadtimes on this and all other board types will be short—a buyer's market. By mid-1987, as exports of electronic equipment expand and domestic demand strengthens, prices will accelerate. In the long term, however, increasing numbers of board suppliers and modest growth prospects for U.S. OEMs will limit PCB production growth.

25 commodities won't jump up too much

The lack of upward inflationary push is clear in Data Resources Inc.'s (DRI) latest quarterly price forecast of 25 key industrial product lines.

In the 12-month period ending first quarter 1988, only one item (paint) shown in the table alongside is expected to advance by more than 6%. And even this exception reflects more the catching up that paint, which fell by more than 3% during the year, is doing.

In any event, DRI analysts, in preparing this special report for *PurchasingWorld*, attribute the continued non-inflationary climate to two basic factors: 1) lingering weakness in the energy sector, and 2) very modest increases in labor costs.

On the latter score, the big Lexington, MA-based econometric forecasting firm sees annual increases in private nonfarm production worker earnings rising from a low 2.4% in 1986 to a manageable 3.8% in 1988. The modest acceleration, observes DRI, is due to the gradual tightening of labor markets over the next few years.

Product price trends into early 1989

(comparison of 1st quarter pricing)

Product	Percent change 88/87	89/88
Raw materials, energy		
Middle distillates	2.0	6.8
Industrial chemicals	2.5	3.2
Construction materials	1.5	3.7
Supplies for manufacturing	3.7	4.3
Metals		
Steel mill products	3.9	4.4
Steel, H-R carbon strip	5.1	4.8
Primary aluminum	3.3	3.9
Copper cathode, domestic	3.3	5.4
Nonferrous scrap	2.1	4.0
Titanium sponge	2.1	3.2
Copper & brass mill shapes	5.9	6.6
Components		
Tires	2.1	5.4
Paper & products	2.1	2.9
Foundry & forge shop products	4.6	4.7
Electronic Components	4.1	6.7
Construction products		
Plastic construction products	−0.4	1.6
Paint materials	7.8	5.3
Concrete rebars	2.7	4.9
Plumbing fixtures, brass fittings	4.4	4.9
Concrete products	2.0	4.2
Machinery		
Metalworking equipment	4.1	4.7
Electrical machinery	4.5	5.3
Integrating & measuring instruments	2.1	3.9
Oil & gas field equipment	3.3	5.5
Trucks (over 10,000 lb)	5.1	5.0

Source: Data Resources, Inc. Cost Forecasting Services

As for energy, the new forecast calls for crude oil prices under $15/barrel early this year—rising to only $17.78/barrel by the fourth quarter of 1988. And this is the reason why such refined petroleum products as middle distillates are expected to increase by only 2% over the next four quarters. As for gasoline, projections call for only about 1.8% quarterly increases in 1987.

Here's a more detailed rundown of other major product lines:

■ **Chemicals:** After an early 1987 advance, prices are expected to level off in response to relatively weak crude oil. And even with some oil increase after that, the average industrial chemical quote is expected to be up only 2.5% over the next four quarters—and just a fractionally larger 3.2% over the subsequent 12-month period ending first quarter, 1989.

■ **Steel:** Near-term forecasts (covering the next quarter or so), assume that recently announced increases will be watered down as USX moves back into production after a long strike. For the longer run, the price index for iron and steel products, after falling an average of 3.4% last year, should increase 1.9% in 1987 and 4.6% in 1988. Steel mill products should experience a 2.7% average increase in 1987 and about a 4.6% advance in 1988.

■ **Nonferrous metals:** Relatively poor demand is expected to linger into the first half of 1987. But as market activity picks up after that, so will prices. After rising only 2.7% from year-earlier levels in the fourth quarter of 1986, the producer price index for primary nonprecious nonferrous metals will rise 3.7% by the end of 1987 and another 5.1% in 1988. By late 1988, aluminum and copper should be commanding about 59¢/lb and 70¢/lb respectively.

■ **Appliances:** Higher costs and higher prices for imported appliances (because of the weaker dollar) will exert some upward pressure. But good demand (because of 1.7 million housing starts anticipated in 1987 and 1988) assures some upward tilt in profits, thereby negating the need for big boosts. Best bet here: an average price increase of only 1.5% annually for the next two years.

■ **Machinery and equipment:** Overall tags are expected to rise 2.9% in 1987 and 4.4% in 1988 (vs. only 1.5% in 1986). But bigger advances are projected for machine tools—primarily because of new import quotas and a depreciating dollar. As such, metal-forming tools should rise 3.7% in 1987 and 5.8% in 1988 (vs. only 1.7% this past year).

■ **Electronic components:** Modest acceleration is seen as the industry pulls out of its recession. Japanese quotas should also start to have a significant impact on prices by late 1987 and 1988 when computer industry demand picks up. Between 1986 and 1988, increases in the electronic component price index will

After you know what supplies you need . . .

Can you picture ***performance*** *that improves* ***production?***

- Inks go on clean, stay on permanently
- Foils release at the temp we need, on the material we use
- Type and plates that have long life
- Typeholders that give fast, accurate setup
- Printing pads cut ink costs
- Cleaners that help with quick cleanup
- Vendor solves my marking problems

Supplies to make your printer a complete marking system.

Call Marking Specialist #87 at **603-352-1130** to find out more.

MARKEM®
High Performance Supplies
Circle 376 on card

Forecast Lottery '87

accelerate from 2% to 5%.

DRI is also making some long-term projections (through the end of the century). By then, for example, the drying up of excess oil supplies should push crude quotes up to over $60/barrel.

Other long-term forecasts: iron and steel (annual increases of 4.2% in 1989, 5.5% in 1995, and 6.2% in the year 2000), nonferrous metals (up an average of 5.8% a year over the 1989-2000 period), and machinery and equipment (average annual increases of 5.6% over the next decade—almost twice the rate between 1986 and 1988).

Prices won't get out of hand—N.A.P.M.

The prestigious N.A.P.M. Business Survey Committee is looking forward to another tolerably good year—confirming what other purchasing executives responding to a new *PurchasingWorld* survey are saying.

The optimism is sprinkled with a little caution, however. Price increases, while hardly expected to get out of hand, may be a bit more widespread than they were in 1986.

Similarly, while the majority expects business to be better than it was in 1986, a fair number of respondents (59%) says they are a bit concerned about the general business picture. It should be noted that only 2% are pessimistic on this score.

The outlook can perhaps best be summed up by Robert J. Bretz, chairman of the committee and Pitney Bowes' director of materials management. As he puts it, "Purchasing managers expect mild inflation, but remain optimistic that the slow but stable expansion experienced in 1986 will continue throughout 1987."

Here's a more detailed rundown of the survey's findings:

- **Prices:** While the number of purchasing managers anticipating boosts over the next six months is up (64% now vs. only 33% and 44% one year and six months ago, respectively), the overwhelming majority of these people feel these increases will be selective (87%) and slight (58%).
- **Growth:** A still impressive 49% expect 1987 to top 1986—with another 36% anticipating no appreciable change. More important, only 15% expect declines. The figures, incidentally, are identical to a year ago when the same question was asked.
- **Supply:** Capacity remains ample, with about 70% of those queried noting that their firms are operating at under 90% of their potential (vs. 64% a year ago). This could explain why capital spending will be heading lower: 29% of the respondents anticipate increases; 40% see declines ahead; and 31% see no change.

Bretz adds that current low operating rates virtually assure continued ready availability and no lead-time stretchouts. The only exception is in military electronics, where he says some tightness has been noted lately.

The N.A.P.M. Business Survey Committee chairman also gives his own estimates for growth and inflation—based on his own experience and comments by members. As for general business activity, he sees real GNP advancing at about a 2-2.5% rate over the new year. And on the price front, he's betting on a 2% increase in overall industrial procurement costs—not bad, but not nearly as good as the relatively flat pattern of the past year. **PW**